OIPE 4

## REMARKS

In response to Notice of Non-Compliant Amendment, Applicants herewith submit Replacement and annotated sheets for Figure 1-23, indicating changes in pagination. Each of the new figures 19-24 is indicated as "New Sheet". These new figures were referred to in the response to the Office Action submitted on November 20, 2006. Thus, no new matter is added.

The Examiner is invited to contact the undersigned at (914) 712-0093 if there are any questions about this amendment or application.

Respectfully submitted,

Date: 4/17/08

Cheryl H. Agris

Cheryl H. Agris, Reg. No. 34,086

OIPE
APR 21 2008
PATENT & TRADEMARK OFFICE

~~1/23~~ 1/29

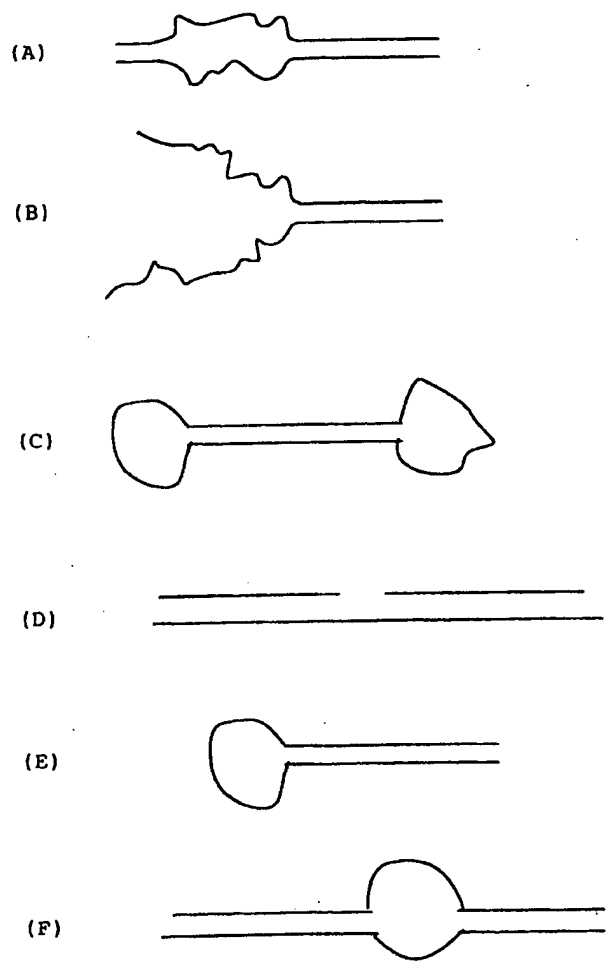



**Figure 1 (A-F)**

**Construct Forms Comprising at Least one Single-Stranded Region**

~~2/23~~ 2/29

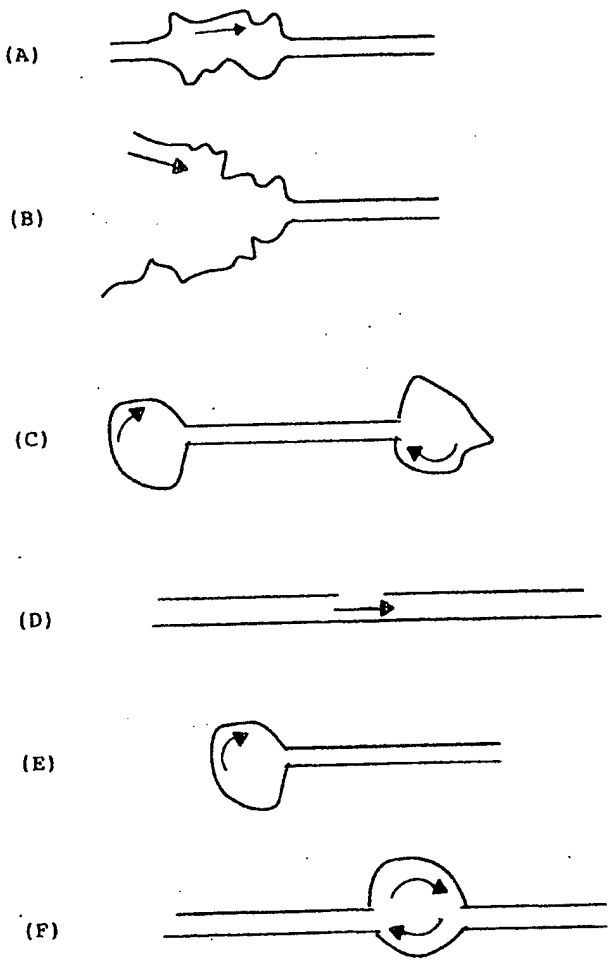



Figure 2 (A-F)

Functional Forms of the Construct

~~3/23~~ 3/29

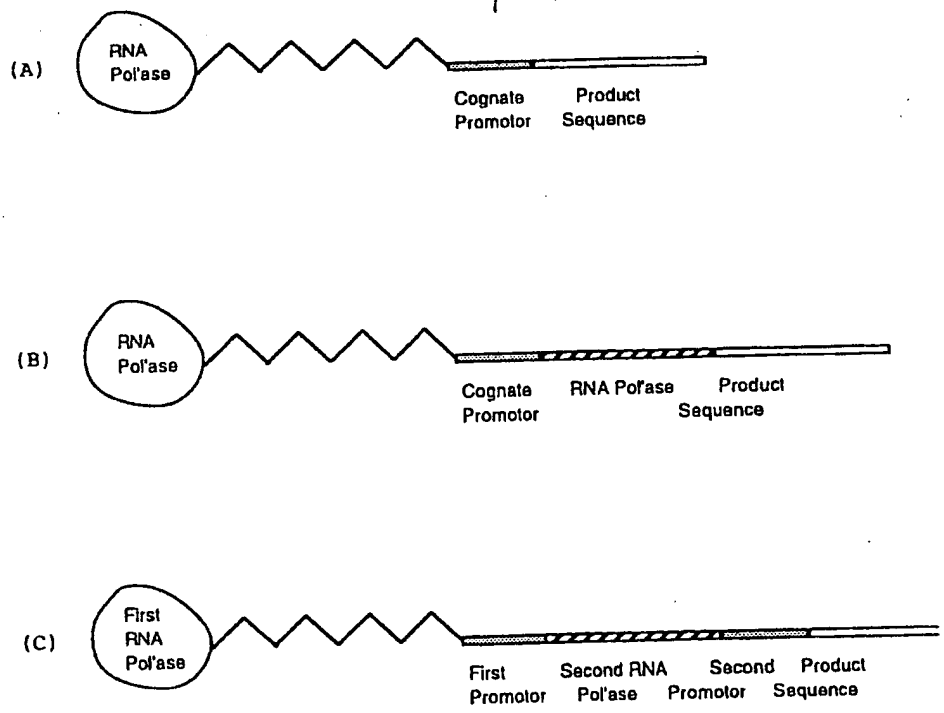



**Figure 3 (A-C)**

**Three Constructs with an RNA Polymerase Covalently Attached to a Transcribing Cassette**

~~4/23~~ 5/29

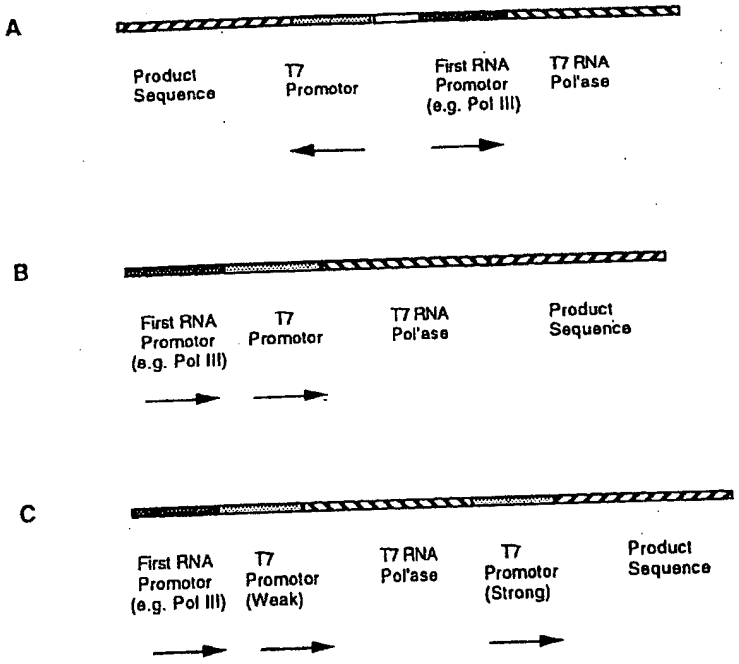



**Figure 4 (A-C)**

**Three Constructs with Promoters for Endogenous RNA Polymerase**

M13mp18. Seq Length: 7250

| | | | | | |
|---|---|---|---|---|---|
| 1. | AATGCTACTA | CTATTAGTAG | AATTGATGCC | ACCTTTTCAG | CTGGCGCCCC |
| 51. | AAATGAAAAT | ATAGCTAAAC | AGGTTATTGA | CCATTTGCGA | AATGTATCTA |
| 101. | ATGGTCAAAC | TAAATCTACT | CGTTCGCAGA | ATTGGGAATC | AACTGTTACA |
| 151. | TGGAATGAAA | CTTCCAGACA | CCGTACTTTA | GTTGCATATT | TAAAACATGT |
| 201 | TGAGCTACAG | CACCAGATTC | AGCAATTAAG | CTCTAAGCCA | TCCGCAAAAA |
| 251 | TGACCTCTTA | TCAAAAGGAG | CAATTAAAGG | TACTCTCTAA | TCCTGACCTG |
| 301. | TTGGAGTTTG | CTTCCGGTCT | GGTTCGCTTT | GAAGCTCGAA | TTAAAACGCG |
| 351. | ATATTTGAAG | TCTTTCGGGC | TTCCTCTTAA | TCTTTTTGAT | GCAATCCGCT |
| 401. | TTGCTTCTGA | CTATAATAGT | CAGGGTAAAG | ACCTGATTTT | TGATTTATGG |
| 451. | TCATTCTCGT | TTTCTGAACT | GTTTAAAGCA | TTTGAGGGGG | ATTCAATGAA |
| 501. | TATTTATGAC | GATTCCGCAG | TATTGGACGC | TATCCAGTCT | AAACATTTTA |
| 551. | CTATTACCCC | CTCTGGCAAA | ACTTCTTTTG | CAAAAGCCTC | TCGCTATTTT |
| 601. | GGTTTTTATC | GTCGTCTGGT | AAACGAGGGT | TATGATAGTG | TTGCTCTTAC |
| 651. | TATGCCTCGT | AATTCCTTTT | GGCGTTATGT | ATCTGCATTA | GTTGAATGTG |
| 701. | GTATTCCTAA | ATCTCAACTG | ATGAATCTTT | CTACCTGTAA | TAATGTTGTT |
| 751. | CCGTTAGTTC | GTTTTATTAA | CGTAGATTTT | TCTTCCCAAC | GTCCTGACTG |
| 801. | GTATAATGAG | CCAGTTCTTA | AAATCGCATA | AGGTAATTCA | CAATGATTAA |
| 851. | AGTTGAAATT | AAACCATCTC | AAGCCCAATT | TACTACTCGT | TCTGGTGTTC |
| 901. | TCGTCAGGGC | AAGCTTATT | CACTGAATGA | GCAGCTTTGT | TACGTTGATT |
| 951. | TGGGTAATGA | ATATCCGGTT | CTTGTCGAAG | ATTACTCTTG | ATGAAGGTCA |
| 1001 | GCCAGCCTAT | GCGCCTGGTC | TGTACACCGT | TCATCTGTCC | TCTTTCAAAG |
| 1051 | TTGGTCAGTT | CGGTTCCCTT | ATGATTGACC | GTCTGCGCCT | CGTTCCGGCT |
| 1101 | AAGTAACATG | GAGCAGGTCG | CGGATTTCGA | CACAATTTAT | CAGGCGATGA |
| 1151 | TACAAATCTC | CGTTGTACCTT | TGTTTCGCGC | TTGGTATAAT | CGCTGGGGGT |
| 1201 | CAAAGATGAG | TGTTTTAGTG | TATTCTTTCG | CCTCTTTCGT | TTTAGGTTGG |

**Figure 5**

**M13mp18 Nucleic Acid Sequence**

~~6/23~~ 6/29

1251 TGCCTTCGTA GTGGCATTAC GTATTTTACC CGTTTAATGG AAACTTCCTC
1301 ATGAAAAAGT CTTTAGTCCT CAAAGCCTCT GTAGCCGTTG CTACCCTCGT
1351 TCCGATGCTG TCTTTCGCTG CTGAGGGTGA CGATCCCGCA AAAGCGGCCT
1401 TTAACTCCCT GCAAGCCTCA GCGACCGAAT ATATCGGTTA TGCGTGGGCG
1451 ATGGTTGTTG TCATTGTCGG CGCAACTATC GGTATCAAGC TGTTTAAGAA
1501 ATTCACCTCG AAAGCAAGCT GATAAACCGA TACAATTAAA GGCTCCTTTT
1551 GGAGCCTTTT TTTTTGGAGA TTTTCAACGT GAAAAAATTA TTATTCGCAA
1601 TTCCTTTAGT TGTTCCTTTC TATTCTCACT CCGCTGAAAC TGTTGAAAGT
1651 TGTTTAGCAA AACCCCATAC AGAAAATTCA TTTACTAACG TCTGGAAAGA
1701 CGACAAAACT TTAGATCGTT ACGCTAACTA TGAGGGTTGT CTGTGGAATG
1751 CTACAGGCGT TGTAGTTTGT ACTGGTGACG AAACTCAGTG TTACGGTACA
1801 TGGGTTCCTA TTGGGCTTGC TATCCCTGAA AATGAGGGTG GTGGCTCTGA
1851 GGGTGGCGGT TCTGAGGGTG GCGGTTCTGA GGGTGGCGGT ACTAAACCTC
1901 CTGAGTACGG TGATACACCT ATTCCGGGCT ATACTTATAT CAACCCTCTC
1951 GACGGCACTT ATCCGCCTGG TACTGAGCAA AACCCGCTA ATCCTAATCC
2001 TTCTCTTGAG GAGTCTCAGC CTCTTAATAC TTTCATGTTT CAGAATAATA
2051 GGTTCCGAAA TAGGCAGGGG GCATTAACTG TTTATACGGC CACTGTTACT
2101 CAAGGCACTG ACCCCGTTAA AACTTATTAC CAGTACACTC CTGTATCATC
2151 AAAAGCCATG TATGACGCTT ACTGGAACGG TAAATTCAGA GACTGCGCTT
2201 CAAGGCACTG ACCCCGTTAA AACTTATTAC CAGTACACTC CTGTATCATC
2151 AAAAGCCATG TGCCTCAACC TCCTGTCAAT GCTGGCGGCG GCTCTGGTGG
2201 TCCATTCTGG CTTTAATCAA GATCCATTCG TTTGTGAATA TCAAGGCCAA
2251 TCGTCTGACC TGCCTCAACC TCCTGTCAAT GCTGGCGGCG GCTCTGGTGG
2301 TGGTTCTGGT GGCGGCTCTG AGGGTGGTGG CTCTGAGGGT GGCGGTTCTG
2351 AGGGTGGCGG CTCTGAGGGA GGCGGTTCCG GTGGTGGCTC TGGTTCCGGT
2401 GATTTTGATT ATGAAAAGAT GGCAAACGCT AATAAGGGGG CTATGACCGA
2451 AAATGCCGAT GAAAACGCGC TACAGTCTGA CGCTAAAGGC AAACTTGATT

Figure 5

M13mp18 Nucleic Acid Sequence

~~7/23~~ 7/29

| | | | | | |
|---|---|---|---|---|---|
| 2501 | CTGTCGCTAC | TGATTACGGT | GCTGCTATCG | ATGGTTTCAT | TGGTGACGTT |
| 2551 | TCCGGCCTTG | CTAATGGTAA | TGGTGCTACT | GGTGATTTTG | CTGGCTCTAA |
| 2601 | TTCCCAAATG | GCTCAAGTCG | GTGACGGTGA | TAATTCACCT | TTAATGAATA |
| 2651 | ATTTCCGTCA | ATATTTACCT | TCCCTCCCTC | AATCGGTTGA | ATGTCGCCCT |
| 2701 | TTTGTCTTTA | GCGCTGGTAA | ACCATATGAA | TTTTCTATTG | ATTGTGACAA |
| 2751 | AATAAACTTA | TTCCGTGGTG | TCTTTGCGTT | TCTTTTATAT | GTTGCCACCT |
| 2801 | TTATGTATGT | ATTTTCTACG | TTTGCTAACA | TACTGCGTAA | TAAGGAGTCT |
| 2851 | TTATCATGCC | AGTTCTTTTG | GGTATTCCGT | TATTATTGCG | TTTCCTCGGT |
| 2901 | TTCCTTCTGG | TAACTTTGTT | CGGCTATCTG | CTTACTTTTC | TTAAAAAGGG |
| 2951 | CTTCGGTAAG | ATAGCTATTG | CTATTTCATT | GTTTCTTGCT | CTTATTATTG |
| 3001 | GGCTTAACTC | AATTCTTGTG | GGTTATCTCT | CTGATATTAG | CGCTCAATTA |
| 3051 | CCCTCTGACT | TTGTTCAGGG | TGTTCAGTTA | ATTCTCCCGT | CTAATGCGCT |
| 3101 | TCCCTGTTTT | TATGTTATTC | TCTCTGTAAA | GGCTGCTATT | TTCATTTTTG |
| 3151 | ACGTTAAACA | AAAAATCGTT | TCTTATTTGG | ATTGGGATAA | ATAATATGGC |
| 3201 | TGTTTATTTT | GTAACTGGCA | AATTAGGCTC | TGGAAAGACG | CTCGTTAGCG |
| 3251 | TTGGTAAGAT | TCAGGATAAA | ATTGTAGCTG | GGTGCAAAAT | AGCAACTAAT |
| 3301 | CTTGATTTAA | GGCTTCAAAA | CCTCCCGCAA | GTCGGGAGGT | TCGCTAAAAC |
| 3351 | GCCTCGCGTT | CTTAGAATAC | CGGATAAGCC | TTCTATATCT | GATTTGCTTG |
| 3401 | CTATTGGGCG | CGGTAATGAT | TCCTACGAATG | AAAATAAAAA | CGGCTTGCTT |
| 3451 | GTTCTCGATG | AGTGCGGTAC | TTGGTTTAAT | ACCCGTTCTT | GGAATGATAA |
| 3501 | GGAAAGACAG | CCGATTATTG | ATTGGTTTCT | ACTGCTCGT | AAATTAGGAT |
| 3551 | GGGATATTAT | TTTTCTTGTT | CAGGACTTAT | CTATTGTTGA | TAAACAGGCG |
| 3601 | CGTTCTGCAT | TAGCTGAACA | TGTTGTTTAT | TGTCGTCGTC | TGGACAGAAT |
| 3651 | TACTTTACCT | TTTGTCGGTA | CTTTATATTC | TCTTATTACT | GGCTCGAAAA |
| 3701 | TGCCTCTGCC | TAAATTACAT | GTTGGCGTTG | TTAAATATGG | CGATTCTCAA |
| 3751 | TTAAGCCCTA | CTGTTGAGCG | TTGGCTTTAT | ACTGGTAAGA | ATTTGTATAA |
| 3801 | CGCATATGAT | ACTAAACAGG | CTTTTTCTAG | TAATTATGAT | TCCGGTGTTT |

Figure 5

M13mp18 Nucleic Acid Sequence

~~8/23~~ 8/29

| | | | | | |
|---|---|---|---|---|---|
| 3851 | ATTCTTATTT | AACGCCTTAT | TTATCACACG | GTCGGTATTT | CAAACCATTA |
| 3901 | AATTTAGGTC | AGAAGATGAA | ATTAACTAAA | ATAATATTGA | AAAAGTTTTC |
| 3951 | TCGCGTTCTT | TGTCTTGCGA | TTGGATTTGC | ATCAGCATTT | ACATATAGTT |
| 4001 | ATATAACCCA | ACCTAAGCCG | GAGGTTAAAA | AGGTAGTCTC | TCAGACCTAT |
| 4051 | GATTTTGATA | AATTCACTAT | TGACTCTTCT | CAGCGTCTTA | ATCTAAGCTA |
| 4101 | TCGCTATGTT | TTCAAGGATT | CTAAGGGAAA | ATTAATTAAT | AGCGACGATT |
| 4151 | TACAGAAGCA | AGGTTATTCA | CTCACATATA | TTGATTTATG | TACTGTTTCC |
| 4201 | ATTAAAAAAG | GTAATTCAAA | TGAAATTGTT | AAATGTAATT | AATTTTGTTT |
| 4251 | TCTTGATGTT | TGTTTCATCA | TCTTCTTTTG | CTCAGGTAAT | TGAAATGAAT |
| 4301 | AATTCGCCTC | TGCGCGATTT | TGTAACTTGG | TATTCAAAGC | AATCAGGCGA |
| 4351 | AATCCGTTATT | GTTTCTCCCG | ATGTAAAAGG | TACTGTTACT | GTATATTCAT |
| 4401 | CTGACGTTAA | ACCTGAAAAT | CTACGCAATT | TCTTTATTTC | TGTTTTACGT |
| 4451 | GCTAATAATT | TTGATAATGGT | TGGTTCAATT | CCTTCCATAA | TTCAGAAGTA |
| 4501 | TAATCCAAAC | AATCAGGATT | ATATTGATGA | ATTGCCATCA | TCTGATAATC |
| 4551 | AGGAATATGA | TGATAATTCC | GCTCCTTCTG | GTGGTTTCTT | TGTTCCGCAA |
| 4601 | AATGATAATG | TTACTCAAAC | TTTTAAAATT | AATAACGTTC | GGGCAAAGGA |
| 4651 | TTTAATACGA | GTTGTCGAAT | TGTTTGTAAA | GTCTAATACT | TCTAAATCCT |
| 4701 | CAAATGTATT | ATCTATTGAC | GGCTCTAATC | TATTAGTTGT | TAGTGCTCCT |
| 4751 | AAAGATATTT | TAGATAACCT | TCCTCAATTC | CTTTCTACTG | TTGATTTGCC |
| 4801 | AACTGACCAG | ATATTGATTG | AGGGTTTGAT | ATTTGAGGTT | CAGCAAGGTG |
| 4851 | ATGCTTTAGA | TTTTTCATTT | GCTGCTGGCT | CTCAGCGTGG | CACTGTTGCA |
| 4901 | GGCGGTGTTA | ATACTGACCG | CCTCACCTCT | GTTTTATCTT | CTGCTGGTGG |
| 4951 | TTCGTTCGGT | ATTTTTAATG | GCGATGTTTT | AGGGCTATCA | GTTCGCGCAT |
| 5001 | TAAAGACTAA | TAGCCATTCA | AAAATATTGT | CTGTGCCACG | TATTCTTACG |
| 5051 | CTTTCAGGTC | AGAAGGGTTC | TATCTCTGTT | GGCCAGAATG | TCCCTTTTAT |
| 5101 | TAAAGACTAA | TAGCCATTCA | AAAATATTGT | CTGTGCCACG | TATTCTTACG |
| 5151 | CGATTGAGCG | TCAAAATGTA | GGTATTTCCA | TGAGCGTTTT | TCCTGTTGCA |

Figure 5

M13mp18 Nucleic Acid Sequence

~~9/23~~ 9/29

5201 ATGGCTGGCG GTAATATTGT TCTGGATATT ACCAGCAAGG CCGATAGTTT
5251 GAGTTCTCT ACTCAGGCAA GTGATGTTAT TACTAATCAA AGAAGTATTG
5301 CTACAACGGT TAATTTGCGT GATGGACAGA CTCTTTTACT CGGTGGCCTC
5351 ACTGATTATA AAAACACTTC TCAAGATTCT GGCGTACCGT TCCTGTCTAA
5401 AATCCCTTTA ATCGGCCTCC TGTTTAGCTC CCGCTCTGAT TCCAACGAGG
5451 AAAGCACGTT ATACGTGCTC GTCAAAGCAA CCATAGTACG CGCCCTGTAG
5501 CGGCGCATTA AGCGCGGCGG GTGTGGTGGT TACGCGCAGC GTGACCGCTA
5551 CACTTGCCAG CGCCCTAGCG CCCGCTCCTT TCGCTTTCTT CCCTTCCTTT
5601 CTCGCCACGT TCGCCGGCTT TCCCCGTCAA GCTCTAAATC GGGGGCTCCC
5651 TTTAGGGTTC CGATTTAGTG CTTTACGGCA CCTCGACCCC AAAAAACTTG
5701 ATTTGGGTGA TGGTTCACGT AGTGGGCCAT CGCCCTGATA GACGGTTTTT
5751 CGCCCTTTGA CGTTGGAGTC CACGTTCTTT AATAGTGGAC TCTTGTTCCA
5801 AACTGGAACA ACACTCAACC CTATCTCGGG CTATTCTTTT GATTTATAAG
5851 GGATTTTGCC GATTTCGGAA CCACCATCAA ACAGGATTTT CGCCTGCTGG
5901 GGCAAACCAG CGTGGACCGC TTGCTGCAAC TCTCTCAGGG CCAGGCGGTG
5951 AAGGGCAATC AGCTGTTGCC CGTCTCGCTG GTGAAAAGAA AAACCACCCT
6001 GGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC GATTCATTAA
6051 TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA
6101 CGCAATTAAT GTGAGTTAGC TCACTCATTA GGCACCCCAG GCTTTACACT
6151 TTATGCTTCC GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT
6201 CACACAGGAA ACAGCTATGA CCATGATTAC GAATTCGAGC TCGGTACCCG
6251 GCGATCCTCT AGAGTCGACC TGCAGGCATG CAAGCTTGGC ACTGGCCGTC
6301 GTTTTACAAC GTCGTGACTG GGAAAACCCT GGCGTTACCC AACTTAATCG
6351 CCTTGCAGCA CAATCCCCTT TCGCCAGCTG GCGTAATAGC GAAGAGGCCC
6401 GCACCGATCG CCCTTCCCAA CAGTTGCGCA GCCTGAATGG CGAATGGCGC
6451 TTTGCCTGGT TTCCGGCACC AGAAGCGGTG CCGGAAAGCT GGCTGGAGTG
6501 CGATCTTCCT GAGGCCGATA CGGTCGTCGT CCCCTCAAAC TGGCAGATGC

Figure 5

M13mp18 Nucleic Acid Sequence

~~10/23~~ 10/29

| | | | | | |
|---|---|---|---|---|---|
| 6551 | ACGGTTACGA | TGCGCCCATC | TACACCAACG | TAACCTATCC | CATTACGGTC |
| 6601 | AATCCGCCGT | TTGTTCCCAC | GGAGAATCCG | ACGGGTTGTT | ACTCGCTCAC |
| 6651 | ATTTAATGTT | GATGAAAGCT | GGCTACAGGA | AGGCCAGACG | CGAATTATTT |
| 6701 | TTGATGGCGT | TCCTATTGGT | TAAAAAATGA | GCTGATTTAA | CAAAAATTTA |
| 6751 | ACGCGAATTT | TAACAAAATA | TTAACGTTTA | CAATTTAAAT | ATTTGCTTAT |
| 6801 | ACAATCTTCC | TGTTTTTGGG | GCTTTTCTGA | TTATCAACCG | GGGTACATAT |
| 6851 | GATTGACATG | CTAGTTTTAC | GATTACCGTT | CATCGATTCT | CTTGTTTGCT |
| 6901 | CCAGACTCTC | AGGCAATGAC | CTGATAGCCT | TTGTAGATCT | CTCAAAAATA |
| 6951 | GCTACCCTCT | CCGGCATGAA | TTTATCAGCT | AGAACGGTTG | AATATCATAT |
| 7001 | TGATGGTGAT | TTGACTGTCT | CCGGCCTTTC | TCACCCTTTT | GAATCTTTAC |
| 7051 | CTACACATTA | CTCAGGCATT | GCATTTAAAA | TATATGAGGG | TTCTAAAAAT |
| 7101 | TTTTATCCTT | GCGTTGAAAT | AAAGGCTTCT | CCCGCAAAAG | TATTACAGGG |
| 7151 | TCATAATGTT | TTTGGTACAA | CCGATTTAGC | TTTATGCTCT | GAGGCTTTAT |

**Figure 5**

**M13mp18 Nucleic Acid Sequence**

~~11/23~~ 11/29

COMPLEMENTARY TO $M_{13}$

| POSITION | 5' • 3' | POSITION | |
|---|---|---|---|
| 645 | AGCAACACTATCATA | 631 | $M_{13}/1$ |
| 615 | ACGACGATAAAAACC | 601 | $M_{13}/2$ |
| 585 | TTTTGCAAAAGAAGT | 571 | $M_{13}/3$ |
| 555 | AATAGTAAAATGTTT | 541 | $M_{13}/4$ |
| 525 | CAATACTGCGGAATG | 511 | $M_{13}/5$ |
| 495 | TGAATCCCCCTCAAA | 481 | $M_{13}/6$ |
| 465 | AGAAAACGAGAATGA | 451 | $M_{13}/7$ |
| 435 | CAGGTCTTTACCCTG | 421 | $M_{13}/8$ |
| 405 | AGGAAAGCGGATTGC | 391 | $M_{13}/9$ |
| 375 | AGGAAGCCCGAAAGA | 361 | $M_{13}/10$ |

COMPLEMENTARY TO SS PHAGE DNA

| POSITION | 5' • • 3' | POSITION | |
|---|---|---|---|
| 351 | ATATTTGAAGTCTTT | 366 | $M_{13}/11$ |
| 371 | TCTTTTTGATGCAAT | 386 | $M_{13}/12$ |
| 391 | CTATAATACTCAGGG | 406 | $M_{13}/13$ |
| 411 | TGATTTATGGTCATT | 426 | $M_{13}/14$ |
| 431 | GTTTAAAGCATTTGA | 446 | $M_{13}/15$ |
| 451 | TATTTATGACGATTC | 466 | $M_{13}/16$ |
| 471 | TATCCAGTCTAAACA | 486 | $M_{13}/17$ |
| 491 | CTCTGGCAAAACTTC | 506 | $M_{13}/18$ |
| 511 | TCGCTATTTTGGTTT | 526 | $M_{13}/19$ |
| 531 | AAACGAGGGTTATGA | 546 | $M_{13}/20$ |

**Figure 6**

**Primers for Nucleic Acid Production Derived from M13mp18 Sequence**

~~12/23~~ 12/29

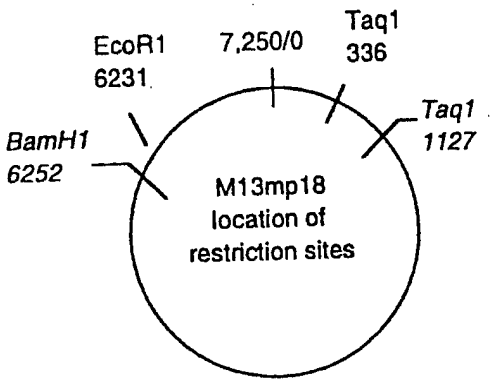
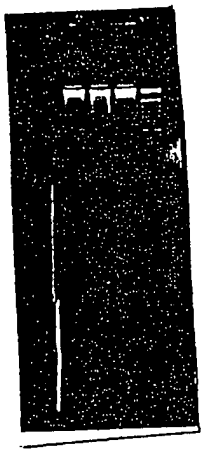



Figure 7

Appropriate M13mp18 Restriction Sites

~~13/23~~ 13/29



Lane 1: from calf thymus + Taq digested mp18 amplification reaction
Lane 2: from Taq digested mp18 amplification reaction
Lane 3: from calf thymus amplification reaction
Lane 4: øX174 Hinf1 size marker

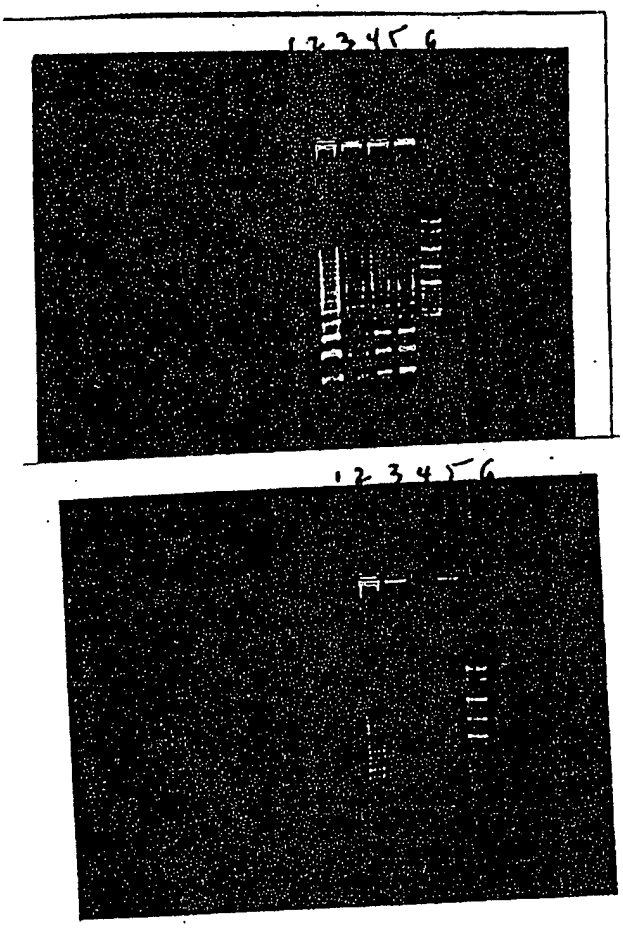
**Figure 8**

~~14/23~~ 14/29

Lane 1: no template
Lane 2: mp18 template, phosphate buffer
Lane 3: MspI/pBR322 size marker
Lane 4: mp18 template, MOPS buffer

**Figure 9**

~~15723~~ 15/29

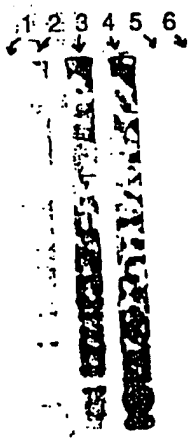



Top= (+) Template
Bottom= (-) Template

Lane 1: phosphate buffer
Lane 2: MES
Lane 3: MOPS
Lane 4: DMAB
Lane 5: DMG
Lane 6: pBR322/MspI size marker

**Figure 10**

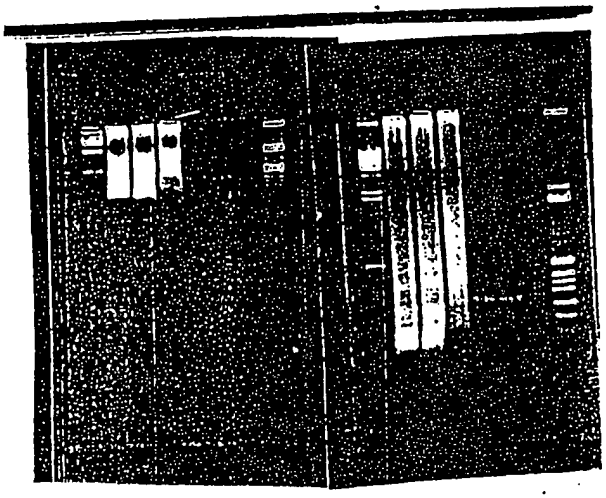
~~16/23~~ 16/29




Lane 1: DMAB buffer, no template
Lane 2: DMAB buffer, mp18 template
Lane 3: DMG buffer, no template
Lane 4: DMG buffer, mp18 template
Lane 5: No reaction
Lane 6: 200 ng Taq I digested mp18 size marker/positive control

**Figure 11**

~~17/23~~ 17/29



First Time Interval Second Time Interval

Agarose Gel Analysis

Lane 1: lambda Hind III marker
Lane 2: Amp/Untreated
Lane 3: Amp/Kinased
Lane 4: Amp/Kinased/Ligated
Lane 5: PCR/Untreated
Lane 6: PCR/Kinased
Lane 7: PCR/Kinased/Ligated
Lane 8: øX174/Hinf1 marker

**Figure 12**

~~18/23~~ 18/29

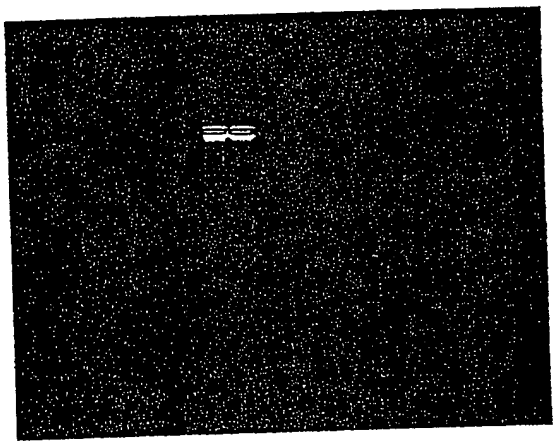
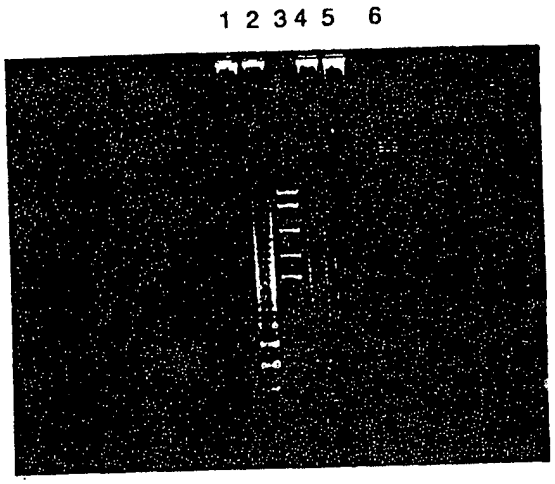


Figure 13

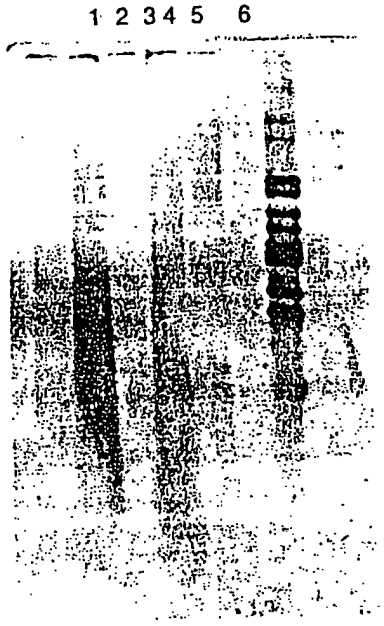
~~19/23~~ 19/29




Lane 1: Primers alone
Lane 2: Primers + taq digested M13 DNA
Lane 3: Molecular weight markers
Lane 4: Primers + RNA
Lane 5: Primers alone
Lane 6: M13 digested DNA
Buffer was dimethyl amino glycine, pH 8.6

**Figure 14**

~~20/23~~ 20/29




Lane 1: Primers alone
Lane 2: Primers + taq digested M13 DNA
Lane 3: Molecular weight markers
Lane 4: Primers + RNA
Lane 5: Primers alone
Lane 6: M13 digested DNA
Buffer was dimethyl amino glycine, pH 8.6

**Figure 15**

~~21/23~~ 21/29

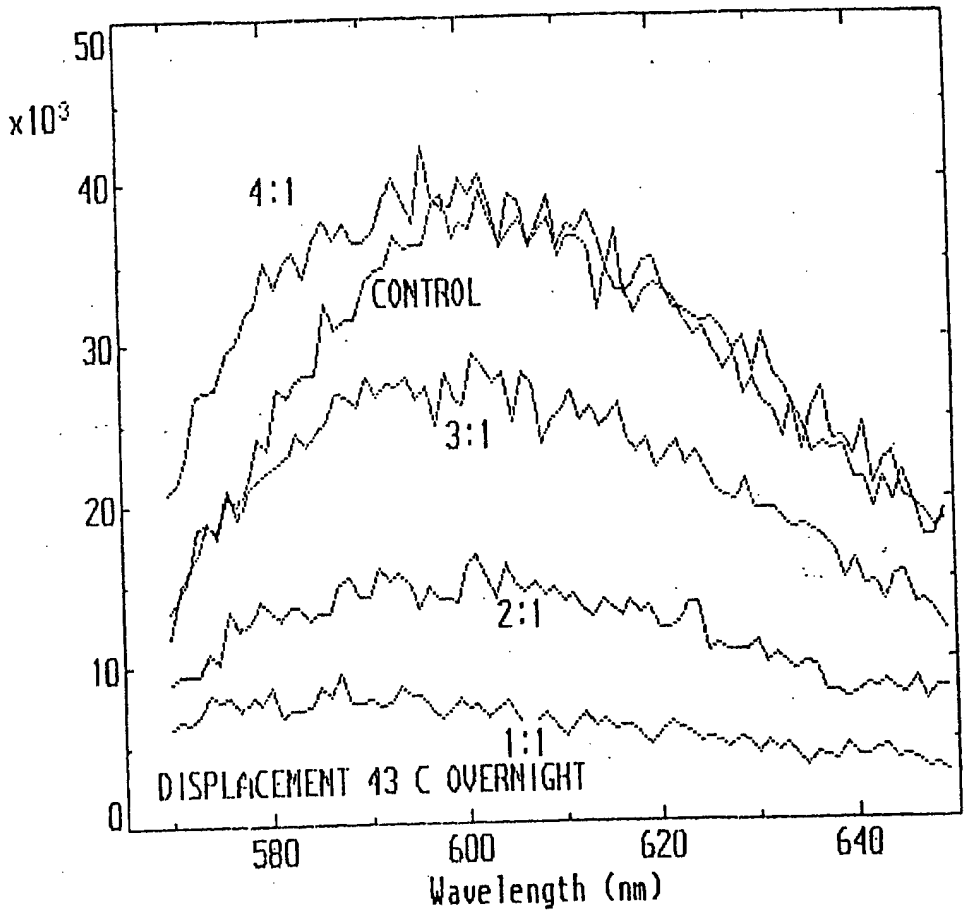



Figure 16

~~22/23~~ 22/29

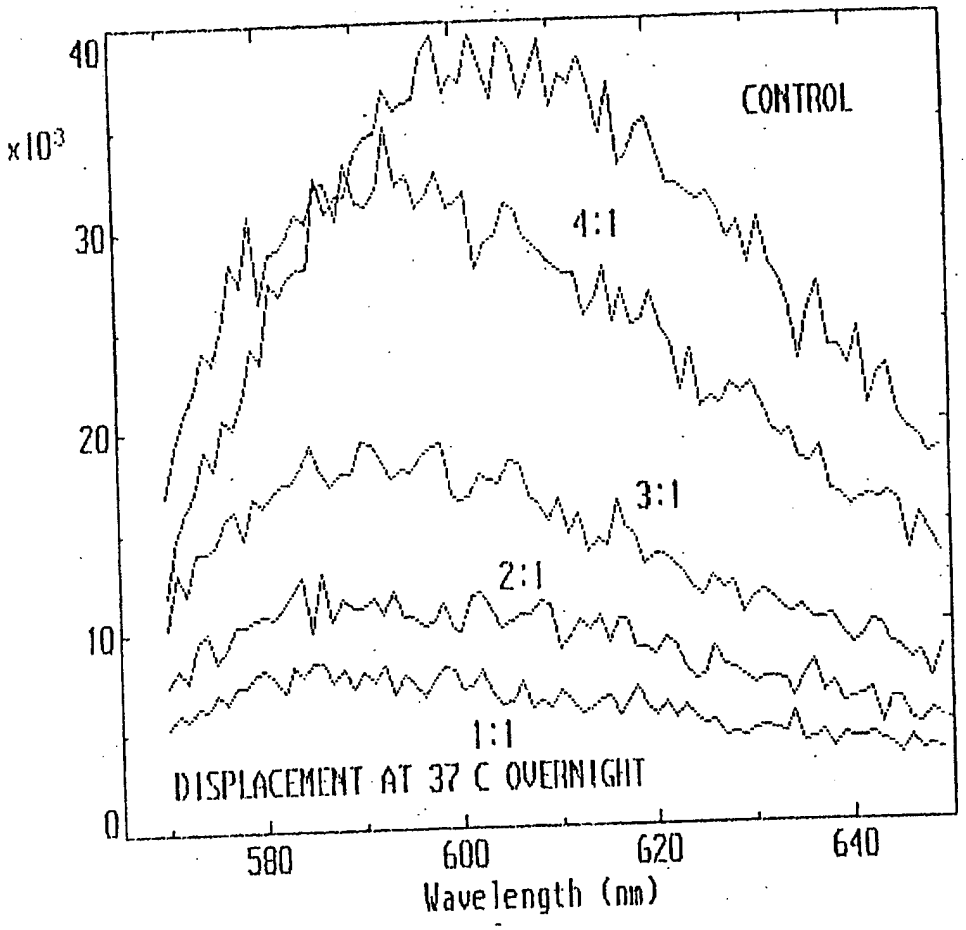



Figure 17

~~23/23~~ 23/29

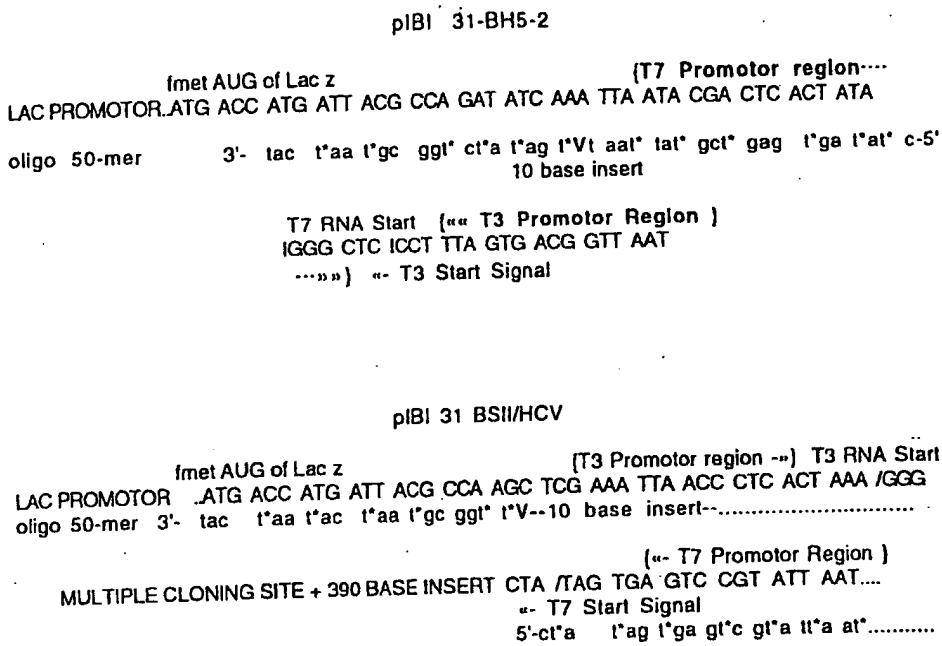



Figure 18

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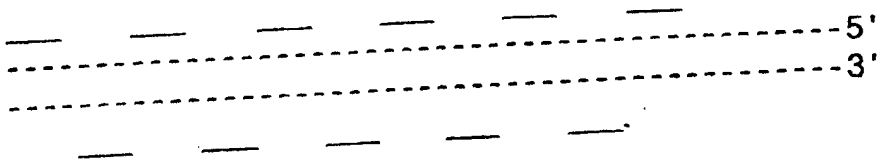


**Figure 19**

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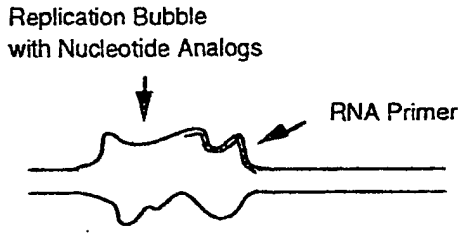



**Primer-Dependent DNA Production Using Nucleic Acid Construct**

**Figure 20**

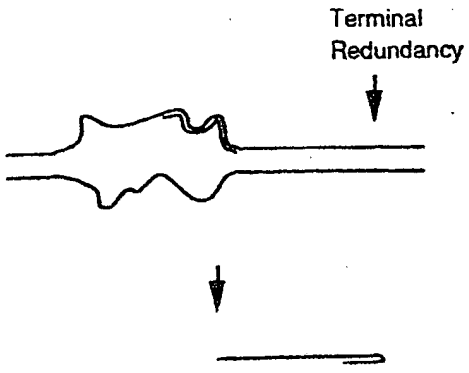
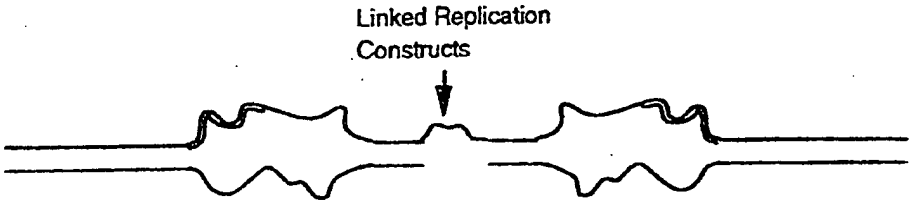



**Figure 21**




**Linked Complementary Production Constructs**

**Figure 22**

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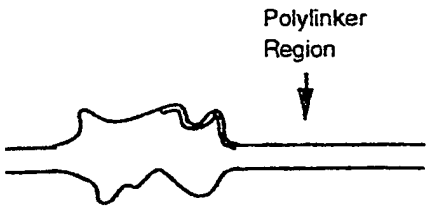


**Cloning Site in Production Constructs**

**Figure 23**

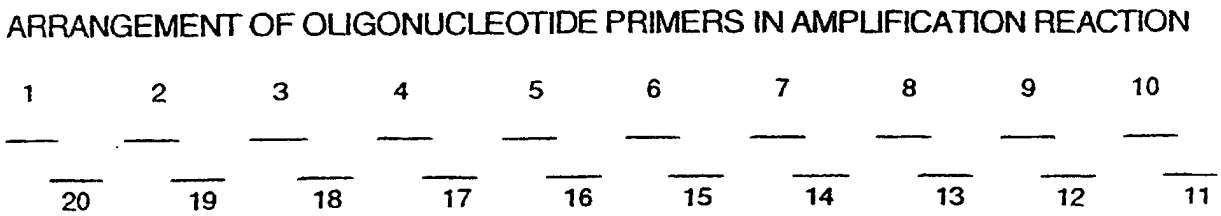
ARRANGEMENT OF OLIGONUCLEOTIDE PRIMERS IN AMPLIFICATION REACTION
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**Figure 24**